ABSTRACT OF THE DISCLOSURE

A magnetoresistive head has a magnetoresistive film including first and second magnetization free layers, an intermediate layer sandwiched between the first and second magnetization free layers, an underlayer and a protective layer, which are stacked in the order of the underlayer, the first magnetization free layer, the intermediate layer, the second magnetization free layer and the protective layer and arranged to be substantially perpendicular to the air-bearing surface, and a first electrode connected with the underlayer and a second electrode connected with the protective layer, the electrodes allowing a current to flow in a direction substantially perpendicular to the plane. Each magnetization direction of the first and second magnetization free layers is allowed to vary independently in response to a signal magnetic flux from a medium. The first and second magnetization free layers produce a magnetoresistance effect in accordance with the magnetization directions thereof.